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ABSTRACT

Presented are the proceedings from a workshop held in Rabat, Morocco from May 24-28, 1976. The main objective of the workshop was to evaluate progress made in information transfer and prepare a program of action enabling documentation centers created or assisted by UNESCO to cooperate in such areas as staff training, translation activities, and the exchange of publications and other information material. Specific topics discussed were: (1) building up basic resources, collections, and stores; (2) collective retrieval tools to the combined resources of the region; (3) regional information service activities; (4) communication network development; (5) training of users and information officers; (6) machinery for regional cooperation; and (7) prerequisites for effective regional cooperation. Summaries of discussion on each topic are given as well as a summary of 24 recommendations to be used in future programs. A list of participants and observers is appended. (JPF)

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WORKSHOP ON POSSIBILITIES FOR IMPROVING INFORMATION TRANSFER

Rabat, (Morocco) 24-28 May 1976

FINAL REPORT

UNITED NATIONS EDUCATIONAL,
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WORKSHOP ON POSSIBILITIES FOR IMPROVING INFORMATION TRANSFER

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FINAL REPORT

I. INTRODUCTION

1. The Workshop on Possibilities for Improving Information Transfer was held in Rabat, Morocco from 24-28 May 1976 in accordance with resolution 4.221 adopted by the General Conference at its eighteenth session.

2. This meeting, convened by the Director General of Unesco was organized with the co-operation of the Government of the Kingdom of Morocco. The main objective was to evaluate progress made in information transfer and prepare a programme of action enabling documentation centres created or assisted by Unesco to co-operate in such areas as staff training, translation activities and the exchange of publications and other information material.

II. PARTICIPANTS

3. Seven experts invited by the Director General of Unesco were the principal participants in the meeting. In addition the United Nations Development Programme and the International Federation of Library Associations sent observers. There were also observers from the National Documentation Centre and the School of Information Sciences of Morocco. The Unesco Secretariat was represented by two members of the staff of the Division of Documentation, Libraries, Archives and Book Promotion. The full list of participants is included at the end of this document.

III. OPENING OF THE SESSION

4. The meeting was formally opened by Mr. Abdelmalek Cherkaoui, Secrétaire Général speaking for Mr. Taieb Ben Cheikh, Secrétaire d'Etat au Plan et au Développement Régional at the Institut National de Statistiques et d'Economie Appliquée (INSEA). On this occasion, Mr. Cherkaoui reviewed the substantial progress already made in Morocco towards reaching the objectives set by the Government of creating a planned national information system compatible with present and future international systems in which it wishes to fully participate. He welcomed assistance already given by Unesco and FAO through the United Nations Development Programme in helping the Government to formulate its information policy and to establish the National Documentation Centre and the School for Information Sciences. The activities of these institutions would serve as useful examples throughout the discussions.

5. The representative of Unesco expressed the thanks of the Organization to the Government of the Kingdom of Morocco for acting as host to the meeting and explained its aims and objectives.

IV. AGENDA

6. The work of the meeting was based on the Discussion Guide which treated the following topics:

1. Building up basic resources, collections and stores;
2. Collective retrieval tools to the combined resources of the region;
3. Regional information service activities;
4. Communication network development;
5. Training of users and information officers;
6. Machinery for regional co-operation;
7. Prerequisites for effective regional co-operation.

7. In addition the participants were informed about activities carried out in Morocco with Unesco participation which were related to the topics discussed. The Director of the National Documentation Centre described the activities of the Centre and the School for Information Sciences and a visit to the Centre included a demonstration of the SDS/RECON Terminal of the European Space Agency (Documentation Centre of FRASCATI). The Director of the National Research Institute for Arabization described the difficulties encountered and progress made in the use of vowels in Arabic for printing and computerized purposes.

V. SUMMARY OF DISCUSSIONS

8. Comments were invited on the present situation regarding information transfer in the various countries represented with particular attention to the ways in which it had been found possible to implement objectives adopted by the Intergovernmental Conference on the Planning of National Documentation Library and Archives Infrastructures (NATIS) held in Paris in 1974. It was determined that serious efforts towards co-ordination and the creation of systems are being made in all the countries in at least some sectors of the information field. Some of these were prompted directly by the Intergovernmental Conference and had been undertaken independently or with Unesco assistance, while others were the result of national efforts to provide better service as well as world-wide trends towards network development. Chile has incorporated a general national information and documentation system within the framework of the national development planning machinery for science and technology; in Egypt a committee has been asked to prepare a plan for a national system which will include the social sciences and education as well as science and technology; Greece is developing a national documentation centre with co-ordinating tasks at the national level; in Malaysia a high level committee has been established to plan the co-ordination of services at national level; in Morocco an interministerial committee has been established to co-ordinate activities in the information field and to plan a national network; this committee is directed by the National Documentation Centre; in Tunisia a national policy for the creation of a national information system will be included in the plan, 1977-1981. The Unesco project for a National Documentation Centre will be the departure point of this system and should initiate the establishment of a national information network. It was concluded that there is a trend towards co-ordination aimed at achieving improved services and reducing the duplication of effort that accompanies fragmented development. There was a general endorsement of the objectives of NATIS, which seek to achieve such co-ordination at the national level.

(a) Building up basic resources, collections and stores

9. When building up the information resources of a country, the main principle guiding acquisitions is to achieve local self-sufficiency in order to best serve the needs of users. It was suggested that in an individual country there

is a certain amount of material that must be widely available, some which must be available in each district and some for which a single copy in the country will suffice. However when it becomes evident that the information stores, libraries, documentation centres, etc., can house only a continuously diminishing proportion of the world's literature, the necessity of sharing resources with other countries will gradually be realized.

10. Very few countries can afford to maintain a high degree of self-sufficiency in the information field. Therefore the principle of co-operation and sharing of resources represents a realistic alternative to the self-sufficiency principle.

11. Today, few would argue that those who want to read could afford to procure every book themselves. Instead, information is more and more regarded as a national resource, and the establishment and maintenance of libraries becomes a matter of government policy. Reference was made to the Unesco public library manifesto which states that the content of the public library "should be a living demonstration of the evolution of knowledge and culture, constantly reviewed, kept up to date and attractively presented ... The public library is concerned with communication of information and ideas, whatever the form in which these may be expressed". While books, periodicals and newspapers remain the most important resources of public libraries, the Manifesto continues, "... science has created new forms of records and these will become an increasing part of the public library's stock ...".

12. The participants pointed out that while on the one hand in a few countries public libraries are already hooked into data banks, so that it becomes difficult to draw the line between them and highly specialized libraries and documentation centres, in most countries public libraries have evolved slowly and are still far from the Manifesto's goal of including in the "total collection ... material on all subjects, to satisfy all tastes at differing educational and cultural standards".

13. It seemed clear that on the national level, widespread public library development, including that in rural areas, would have to depend on the creation of suitable systems or networks. In many countries of the developing regions the provision of satisfactory library services to newly literate populations would depend on the production by publishers of suitable works in local languages. Indispensable to serious development of libraries is the preparation of librarians and other information specialists attuned to meeting new demands and new needs.

14. Three planning areas for building up the basic resources of a region in terms of the Unesco Manifesto were considered: (1) establishment of a provision plan; (2) adoption of a distribution plan; (3) co-operation in a publications plan.

15. A provision plan for regional acquisitions. From a national point of view it seems important that every country determines its national needs and priorities for information, and thus, decides which knowledge stores it must have and cannot be without. But even if there are many good reasons for a country to become independent of others in its stores of certain basic areas of knowledge, there are financial reasons for relying to a certain extent on neighbouring countries. Reference was made to various existing plans which have been set up in the industrialized countries either on a national (Farmington plan) or regional basis (Scandia Plan).

16. A step-by-step procedure could start by an acquisition plan between national libraries or national documentation centres in the region and by sending a letter of intent proposing some possible subject areas for co-operative acquisitions. A similar procedure could follow for university

libraries, special libraries, and research institute libraries. Often their collections are already differentiated to some degree which opens up opportunities for co-operation in the acquisition field.

17. The follow-up would be to form a committee to draw up a regional acquisition plan and designate responsible agents.

18. In order to base the provision of foreign material on a more solid foundation, some groundwork might be needed, namely:

(1) To compile an inventory of the specialties and fields of interest of the co-operating national libraries, and of the other types of libraries. This could be done through a questionnaire sent out by the committees;

(2) To try to obtain some estimates of the distribution of current periodicals in specific fields among the libraries of the region;

(3) To assess in which fields a distribution of responsibilities could be made;

(4) To list the libraries to participate in the plan and their responsibilities for certain specialties, and to distribute this list as widely as possible.

19. Such an arrangement is already being made in South East Asia by a COMSAL committee and Unesco recently sponsored the first Latin American Seminar on The Control and Acquisition of Bibliographic Material (SANDLA) to explore the possibility of a similar scheme for that region.

20. In its draft programme for 1977/78 Unesco has foreseen studies on the possibility of setting up regional clearing houses. Discussions have already taken place with some countries concerning plans of the Moroccan National Documentation Centre to establish a bank of microfiches which could be of interest to African and Arab countries and those of the mediterranean region. A directory of current Indian science periodicals is already available in magnetic tape form and can be given to interested countries on an exchange basis through INSDOC.

21. A distribution plan could be effective for a region where national, university and many special libraries are faced with the growing mass of literature coming in as gifts or on exchange from all parts of the world. Few libraries will be able or would wish to store and preserve all literature received. The objective of a distribution plan is to reduce duplication of little-used material, including that acquired within the region by gift or exchange. The participants were interested in Unesco's plans to explore the feasibility of assisting in setting up regional lending libraries of infrequently used materials.

22. Co-operative acquisition plans do not however solve all the problems. Thus the transportation of material over national borders must take place without delay and at minimum cost, and interlibrary loans and provision of microfilm services between the libraries should be developed.

23. Unesco continues to enlist the support of competent international organizations for measures designed to facilitate the circulation of educational, scientific and cultural materials including magnetic tapes. To this

end, proposals to reduce tariff, freight and currency obstacles to the movement of these materials will be submitted to the General Agreement on Tariffs and Trade (GATT), the International Air Transport Association (IATA), the United Nations Conference on Trade and Development (UNCTAD), and the Customs Co-operation Council (CCC). In the light of these efforts countries within a particular region should try to draw up protocols which harmonize with the two existing agreements on the free flow of materials and, where necessary, extend them to cover the needs of the co-operative plans. It was considered important that they should also adhere to the Convention Concerning the International Exchange of Publications and the Convention Concerning the Exchange of Official Publications and Government Documents between States. The participants felt that Unesco National Commissions could play an important rôle in fostering the passage and implementation of such conventions.

24. The encouragement that Unesco gives to the establishment of co-operative publications plans was discussed. It was felt that co-publication schemes were useful not only in such fields as children's books and simple books for adults but that there was a real need for the translation of basic tools and instructional materials in the fields of librarianship and information science into Arabic and other languages. Teaching materials adapted to the needs of various regions were also badly needed.

25. While it was felt that it could be useful for Unesco to hold a further symposium for editors of documentation, library and archives journals in 1977-78 it was suggested that this might be more productive than the first if held at a regional level. It was also felt that editors of periodicals in related fields such as computer science and reprography should participate.

(b) Collective retrieval tools to the combined resources of the region

26. When there is an urgent need for a book or a periodical which is not owned by a library and cannot be purchased, efforts are made to find it in other libraries. When groups of libraries in a geographic region have established reciprocal arrangements for loans, maximum use of the combined literature resources can be achieved by the compilation of catalogues often prepared at the national level but seen in a regional perspective.

27. One method of compilation is for each co-operating library to send cards of its foreign periodicals to the library responsible for preparing the union list. Another way is to take an existing printed list of periodicals and send it for marking to the co-operating libraries. Using a list which exists in machine readable form facilitates the subsequent printing process. An example of such a list is the International Serials Data System (ISDS) which contains 20,000 titles and is available from the ISDS centre at the National Library, Paris. As all Unesco Member States have been asked to set up national ISDS centres, regional co-operation within the framework of this UNISIST programme could be beneficial both for the input phase and for output products. The importance of submitting the national titles was stressed.

28. A union catalogue of periodicals including holdings would be an ambitious task for co-operating libraries of a region; one with titles only can provide indispensable information for an acquisition plan. A union catalogue of acquisitions of foreign books might be considered for co-ordination at national level especially for countries where foreign currency is scarce and manuscripts, rare materials and out-of-print books can usefully be included.

29. The Universal Bibliographic Control (UBC) programme launched by Unesco and the International Federation of Library Associations aim to achieve universal availability, in an internationally accepted interchange form, of

basic bibliographic data on all publications. UBC will therefore facilitate the exchange of catalogue cards between countries either in the form of cards or tape. The participants were informed about work undertaken by Unesco to help countries including Egypt and Thailand create software for the cataloguing of books. It was felt that it would be desirable to organize preparatory meetings at regional level in preparation for the 1977 international congress on UBC. Plans for holding in Latin America a meeting on the use of the CALCO format were cited. The fact that modern libraries deal not only with printed materials but also with films, video-tapes, gramophone records, tapes, etc. was stressed. Software should be made available within groups of countries speaking the same language and also to other countries that could profit from the experience acquired and adapt it to their own needs. Countries with common languages should share such programmes.

30. Simple to compile, but of great information value is a guide to libraries in a region. The fact that Unesco is now preparing a second edition of its Directory of Documentation centres, libraries and schools of librarianship in Africa was cited. In India such a national directory based on local directories is in preparation using computers and other national activities such as those in Brazil and Greece were mentioned.

31. Similar in kind, but of still greater value to the user in search of information would be guides to information resources in a region. Such guides could list research laboratories, agricultural extension centres, etc. as well as libraries and documentation centres. They might also include information on research in progress which could assist in avoiding duplication of effort.

(c) Regional information service activities

32. While union catalogues can be looked upon as corner-stones in the structure of physical accessibility to dispersed library collections, access could also be improved by the existence of centralized mechanisms funded collectively or with foreign support.

33. These might take the form of clearing-houses in specific subject fields, or for specific types of literature. Similarly, referral services taking the form of regional enquiry services where requests for information are received and answers to specific questions are obtained not by physical reference to the literature but by reference to other centres, libraries or even individuals are useful. The identification of gaps in national or even regional research programmes should be undertaken jointly by the body responsible for research policy and the appropriate documentation centres. In some countries such as Malaysia, national libraries may be the appropriate location for referral services.

34. Clearing-houses and referral services should be established at the national level and be linked by regional counterparts which would draw attention to collections of common interest in such fields as Arabic manuscripts.

35. Another area where countries, in spite of differing levels of development can co-operate is in the transfer of technology. Setting up a technical information service for the region to promote the utilization of technological knowledge would benefit all participating countries. It was felt that national plans should make provision for such services linked to the appropriate communities of users and specialized institutions.

36. Heaviest use of international question-and-answer services such as that provided by UNIDO is apt to be made by countries in the initial stages of developing information infrastructures. Technical information services need

adequate technical, commercial and economic collections upon which they can rely. There is a strong case for regional activity to create and strengthen collections in libraries and information centres so that the technical information services can be made available to industry through the appropriate national institution.

37. A still more elaborate form of service is given by an information analysis centre which digests and evaluates available information in a clearly defined field of knowledge or in relation to a specific mission. It was felt that these IAC services should be more heavily stressed in the education of information specialists and that the establishment of these services should be encouraged. Assistance for the establishment of regional co-operative services of this kind might be sought from international organizations. This aid might take the form of financial assistance or advisory services.

38. Selective Disseminationof Information (SDI) is another activity which from many viewpoints could best be undertaken on a regional basis. SDI consists of setting up user profiles in machine-readable language which are then run against tapes from data bases. An interesting Unesco regional pilot project within the Unisist programme which is being conducted in India was described in some detail. The participants felt that Unesco could usefully arrange regional training seminars at such pilot projects for the orientation of users as well as information specialists.

39. The establishment of procurement centres for non-conventional literature should be encouraged. The studies which are to be undertaken during 1977-78 by Unesco concerning the feasibility of setting up regional lending libraries, presumably connected with existing centres, could be a step in investigating and filling this need.

40. It was agreed that another useful service which could serve a whole region is the translation pool which provides complete translations or abstracts in a language known to the user of articles but published in an unfamiliar language. The establishment of such centres at the national level should also be encouraged. An example is one set up in Argentina with Unesco assistance which is expected to have a regional vocation in the future.

41. Countries not using one of the widely-used languages face special problems in gaining access to the world body of knowledge, but before embarking upon new translation services an effort should be made to identify national services which might be available in neighbouring countries with a similar language problem. The setting up of a registry or clearing-house for completed translations in the region would be a modest and useful beginning.

42. It was further suggested that a reprographic, microfilming and printing service with regional vocation might be set up on a co-operative basis. A possible rôle for Unesco was increased emphasis on training personnel in these fields. The facilities at INSDOC are available for this kind of activity as are those of the Moroccan National Documentation Centre.

(d) Communication network development

43. In contrast to mechanisms for co-operative endeavours composed of a central source that provides service to the users in a region, the establishment of information networks means that the service becomes reciprocal. Each node involves both active input and reception of information. A simple network for improved library co-operation is a telex or teletype network. Participants were reminded that IFLA has published a specific code-language for telex communication between libraries.

44. A similar network is the telefacsimile network which makes it possible to transmit full pages of documents over the telephone to overcome postal delays, customs barriers, etc.

45. The costs of interactive terminals having a display screen, a keyboard and a printing facility lessen markedly each year. The introduction of satellites has reduced costs and improved efficiency.

46. Similar to an input operation is an organization whereby libraries or documentation centres interested in a regional SDI service could make remote on-line input of their own profiles, update and, maintain them in on-line mode every time an SDI tape comes from the data base producer. The publication of bibliographies and other retrieval tools could be supplemented by an on-line retrieval system which would enable each terminal user to interrogate the regional centre directly.

47. The participants were impressed with the service seen in Morocco, that of the European Space Agency, Space Documentation Service (SDS) network which with Unesco (UNDP) assistance, has a terminal node, on African soil at Rabat where access to a number of data bases in pure and applied sciences is available. Unesco, through a pilot project in Tunisia, is studying the possibility, in co-operation with the Moroccan Centre, of extending the exploitation of this data base to a regional network. The Moroccan authorities are anxious to co-operate fully with other Arab and African countries in creating a regional system.

(e) The training of users and information officers

48. It was agreed that efforts should be concentrated on providing proper training at the national level, or where this is premature, on the establishment of appropriate training programmes at regional level. Particular attention was given to identifying the training needs of users which are based in many developing countries on:

(a) lack of education which makes the potential user unable to formulate his information problem,

(b) lack of appreciation of the possible value of information,

(c) lack of knowledge or appreciation of the potential possibilities of existing information services,

(d) absence of suitable information services.

49. It was suggested that a twofold effort is required in which Unesco could play an important rôle. Member States need to be alerted to the need for including instruction in the use of libraries and simple research methods in primary and secondary schools as a long-range goal. It is also important to provide this kind of instruction at the university level to satisfy immediate needs in many parts of the world.

50. Importance was also given to the conduct of surveys of the existing specialized manpower situation which could result in forecasts of the needs for education and training of information specialists in the country and in the region.

51. It was hoped that Unesco would continue and intensify its efforts to train teachers of librarianship and information science through basic regional courses, refresher courses, and provision of fellowships for advanced study. Reference was made to Unesco's assistance to countries including Senegal, Uganda and Chile where consultants have been or are being sent to teach advanced courses and advise the authorities on introducing or improving courses in documentation and information science.

52. The participants had an opportunity to learn about the Moroccan School of Information Sciences which, opening in 1974 offers a three-year programme for those who have completed secondary school and a two-year programme for those who have completed a first university or engineering degree.

53. Specific topics like map conservation, terminal handling techniques, library planning, utilization of patents and inter-library loan activities are well suited for regional seminars and workshops.

(f) Machinery for regional co-operation

54. The NATIS report from Unesco states: "Government should establish the appropriate organs for the operation of NATIS and clearly designate responsibilities and determine priorities at all levels, bearing in mind that coping with the quantities of documents and data now being produced far exceeds the resources of any single service acting on its own. It is therefore highly desirable that a central co-ordinating body (bodies) be set up to advise the government on the formulation and implementation of national information programmes and in matters related to international co-operation in these fields."

55. Similarly, the UNISIST programme recommends: "A governmental or government-chartered agency should exist at the national level to guide, stimulate and conduct the development of information resources and services in the perspective of national, regional and international co-operation. These agencies should in particular give their support, or themselves adhere to, co-operative programmes of international scope in consonance with the principles and goals of UNISIST."

56. The participants recognized the complementary nature of NATIS and UNISIST and throughout the discussions made frequent references to efforts in various countries to implement their objectives.

(g) Prerequisites for effective regional co-operation

57. The establishment of national committees was considered the first step for regional co-operation which could be followed by the creation of joint committees, in particular among countries with common linguistic and cultural backgrounds. These committees could be composed of members representing similar or equivalent bodies on the national scene.

58. It was agreed that the two most serious barriers to regional development of library systems, co-operative ventures and networks are: the fear of possible loss of national autonomy as the price for membership in the regional effort and the necessity of providing sufficient funding. There are of course, many other barriers: physical, geographical, legal and administrative which can be progressively lessened as this fear is removed and funding becomes available.

59. The basic steps to be taken even before governments enter into discussion on regional co-operation are adherence in each country to established standards, to Universal Bibliographic Control and to NATIS and UNISIST requirements.

VI. SUMMARY OF MAIN CONCLUSIONS

60. The following proposals for the guidance of professional groups wishing to stimulate national and regional co-operation and which Unesco might wish to consider in formulating future programmes emerged from the discussions:

1. Basic steps to be taken at the national level before governments enter into discussions on regional co-operation are adherence to established standards, to Universal Bibliographic Control (UBC) and to NATIS and UNISIST requirements. (Paragraph 59)

2. Increased attention needs to be given to the preparation of suitable materials in local languages of instruction to meet the growing demands created by the establishment of networks of public library services. (Paragraph 13)

3. It is important to establish clearing houses and referral centres at the regional level which can link national units, and facilitate the exchange and increase the availability of documentary material including microforms. (Paragraphs 20, 21, 34)

4. Communication channels should be established to ensure a better flow of information to ISORID at Unesco concerning available software which could then be made available to and used by other countries. (Paragraph 20)

5. Promotion should be given to the establishment of national and regional centres for the exchange of bibliographic materials. (Paragraph 21)

6. As Unesco continues to enlist the support of competent international organizations for measures designed to facilitate the circulation of educational, scientific and cultural materials including magnetic tapes, countries within a particular region should try to draw up protocols which harmonize with the existing agreements on the free flow of materials. (Paragraphs 22-23)

7. Unesco National Commissions should be encouraged to play an increased rôle in securing the adoption and implementation of Unesco conventions which encourage the free flow and exchange of materials. (Paragraph 23)

8. There should be joint efforts for the preparation and translation of important tools for documentation and library work such as subject headings, classification schemes etc. in languages where these do not exist and for which there is an important audience. Joint efforts would also be appropriate for the preparation of teaching materials in librarianship and information science adapted to the needs of various regions. (Paragraph 24)

9. The ISDS Centre in Paris should be encouraged to provide lists of periodicals in the social sciences for countries which are starting union catalogues as a means of accelerating their compilation. (Paragraph 27)

10. Consideration should be given at the national level to compiling union catalogues of foreign books as a guide to continuing national acquisitions programmes. (Paragraph 28)

11. It is important in preparation for the international congress on UBC (1977) that preparatory meetings be organized by professional groups at the national and regional levels. (Paragraph 29)

12. Guides to information sources including research laboratories agricultural extension centres, etc. as well as libraries and documentation centres should be prepared. (Paragraph 31)

13. Regional technical information services to promote the utilization of technological knowledge should be set up. (Paragraphs 35-36)

14. The establishment of information analysis centres should be promoted and preparation for work in them should be more heavily stressed in the education of information specialists. (Paragraph 37)

15. Training workshops for operators of SDI services should be organized at the regional level to utilize existing know-how. (Paragraph 38)

16. Member States should be encouraged to establish services to identify translation resources at the national and regional levels. (Paragraph 41)

17. Increased attention should be given to organizing regional training courses for personnel in such areas as reprography and printing. Documentation centres should offer their facilities and organize such courses in co-operation with Unesco. (Paragraph 42)

18. In view of the substantial contributions they make to facilitating information transfer, serious study should be given at the national level to the feasibility of participating in the various forms of telecommunication networks. (Paragraphs 43-47)

19. Unesco should play a leading rôle in investigating the possibilities of using satellites for the transfer of bibliographic data.

20. Systematic programmes for users' education, particularly at the university level, should be introduced into the curriculum. Joint efforts should be made to prepare audio-visual packages in common languages. (Paragraphs 48-49)

21. Countries which possess appropriate facilities ought to encourage the exchange of teachers and students and undertake the preparation of personnel in the information field for countries which do not as yet have their own training infrastructures.

22. Surveys of the existing specialized manpower situation should be undertaken on which to base forecasts of the needs for education and training of information specialists in the country and the region. (Paragraph 50)

23. Efforts should be made at the national and regional levels to improve and harmonize the curricula of existing schools of librarianship and information science. Unesco should continue its work in this area as well as its efforts to train teachers of these disciplines with a view to achieving an increased compatibility. (Paragraph 51)

24. Regional seminars and workshops could usefully be organized on such topics as map conservation, terminal handling techniques and interlibrary loan activities. (Paragraph 53)

ANNEXE/ANNEX

LISTE DES PARTICIPANTS/LIST OF PARTICIPANTS

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